1115 Congress Street, 6th Floor, Houston, Texas 77002 ■ (832) 927-6900

To: Harris County Precinct Two Commissioner Adrian Garcia

From: Katie Short, Director; Amber Weed, Chief of Staff and Policy Director;

Amy Rose, Senior Analyst

CC: Mike Lykes, Kris Banks, and Mohammed Jamal with Precinct Two; Barbie

Robinson, Gwen Sims, and Will Hudson with Harris County Public

Health

Date: July 20, 2021

Re: Monthly Memo on COVID-19 Vaccine Distribution, July 2021

EXECUTIVE SUMMARY

In January 2021, Precinct Two requested the Analyst's Office produce a monthly memo regarding the distribution of COVID-19 vaccinations in Harris County. This is the seventh memo of a standing monthly memo the Analyst's Office produces as the vaccine distribution continues to evolve at the federal, state, and local levels.

This memo provides an overview of the COVID-19 pandemic and vaccine distribution in Harris County. Key findings from the data in this memo include:

- As of July 5, 2021, **41.9%** (**1,975,622**) of individuals in Harris County were fully vaccinated.
- As of July 5, 2021, 7.3% (343,207) of individuals in Harris County were partially vaccinated.
- Between June 13, 2021 and July 5, 2021, the percentage of individuals in Harris County vaccinated with at least one dose increased by 5.7% (from 2,194,319 to 2,318,829).
- Between June 13, 2021 and July 5, 2021, the **percentage of individuals in Harris County fully vaccinated increased by 10.3% (from 1,790,902 to 1,975,622).**
- Zip codes 77013 and 77060 have the fewest number of individuals per 100,000 residents fully vaccinated (25,799 and 26,390, respectively).
- Zip codes 77046 and 77030 have the greatest number of individuals per 100,000 residents fully vaccinated (145,876 and 166,606, respectively)
- The median of the median incomes of the fifteen Harris County zip codes with the fewest number of individuals per 100,000 residents fully vaccinated is \$40,298.

¹ IMPORTANT NOTE: Not all data sums to totals reported. This is due to poor and inconsistent data reporting by providers, and because patients have not been required to disclose all demographic data. DSHS reports it is actively conducting county and provider-level analyses to identify if certain providers or areas are underreporting more than others for targeted data entry funding and training.

- The median of the median incomes of the fifteen Harris County zip codes with the greatest number of individuals per 100,000 residents fully vaccinated is \$108,644.
- For all individuals who were fully vaccinated by a Harris County provider,
 - 7.0% (137,467) are 75 years old or older;
 - 20.4% (402,033) are ages 60-74;
 - 26.2% (516,925) are ages 45-59;
 - 25.7% (507,916) are ages 30-44;
 - 20.8% (411,090) are ages 12-29.
- For all individuals who were fully vaccinated by a Harris County provider,
 - 29.1% (573,991) identify as White;
 - 34.4% (680,596) identify as Hispanic/Latino;
 - 10.9% (215,289) identify as Black;
 - 9.0% (178,478) identify as Asian American or Pacific Islander;
 - 5.6% (111,048) identify as Multi-Racial; and
 - 0.2% (4,873) identify as American Indian or Alaskan Native.
- Between January 1, 2020 and July 5, 2021:
 - All providers in Harris County administered a cumulative 4,779,252 COVID-19 PCR tests;ⁱⁱ
 - There were 404,843 positive COVID-19 cases confirmed by a PCR test in Harris County; and
 - There were 4,914 confirmed COVID-19-related deaths in Harris County.

The Analyst's Office acknowledges Harris County Public Health for their significant contributions to this memo.

 $^{^{\}text{\tiny{II}}}$ PCR refers to the polymerase chain reaction or nucleic acid amplification tests commonly used to test for COVID-19.

INTRODUCTION

In January 2021, Precinct Two requested the Harris County Commissioners Court's Analyst's Office (the "Analyst's Office") produce a monthly memo regarding the distribution and administration of COVID-19 vaccinations in Harris County. This is the seventh memo of a standing monthly memo the Analyst's Office produces as the vaccine distribution continues to evolve at the federal, state, and local levels.

This memo includes data and analysis regarding COVID-19 testing, cases, deaths, and vaccine administration in Harris County. Precinct-level age and race and ethnicity data are provided where available. Previous versions of this memo reported analyses for individuals *vaccinated with at least one dose*. To better report on the collective efforts to reach herd immunity in Harris County, all analyses within this memo now report individuals *fully vaccinated* instead.

METHODOLOGY

Data utilized in this memo are from Harris County Public Health (HCPH); the Centers for Disease Control and Prevention (CDC); and Harris County's Applied Technologies Location Analysis and Statistics (ATLAS) System. Data reflect COVID-19 vaccine doses administered in Harris County by all providers from the beginning of the vaccine rollout, December 14, 2020, through July 5, 2021, and all testing, confirmed cases, and COVID-19-related death data from January 1, 2020 through July 5, 2021.

Data Collected from Harris County Public Health (HCPH)

The majority of data in this memo was sent to the Analyst's Office from HCPH, which analyzes vaccine data received by the Texas Department of State Health Services (DSHS) ImmTrac2 system. As the Local Health Authority for the County, HCPH also analyzes and receives testing, confirmed cases, and COVID-19-related death data from local health providers (including the City of Houston) and other sources. Income data provided by HCPH reflects American Community Survey, 2014-2018 Five-Year Estimates. HCPH data and/or analysts aided in the development of all tables and figures.

DSHS advised the following via email regarding the data available on ImmTrac2:

Providers in Texas have up to 24-hours to report doses administered in ImmTrac2, and the dashboard is updated by 4:00 pm with data reported as of 11:59 pm the previous night. This means there could be as much as a 48-hour lag between when a dose is administered and when it appears on ImmTrac2.

Prior to the fifth version of this memo, which was circulated on June 3, 2021, this memo included updates and projections on vaccine allocations to the State of Texas or Harris County using DSHS data. However, as of May 10, 2021, DSHS announced it is no longer distributing weekly allocations of vaccine doses to providers due to a "sufficient supply of vaccine." Due to this changed strategy of allocating vaccine, this memo no

^{III} Department of State Health Services (DSHS) COVID-19 Vaccine Allocations. Retrieved May 27, 2021, from https://www.dshs.state.tx.us/coronavirus/immunize/vaccineallocations.aspx

longer provides updates and projections on vaccine allocations to the State of Texas or Harris County.

Data Collected from Centers for Disease Control and Prevention (CDC)

The Analyst's Office collected information on social vulnerability from the Centers for Disease Control and Prevention (CDC). Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human caused threats, such as toxic chemical spills.^{iv} The Social Vulnerability Index (SVI) was created by the CDC and depicts the social vulnerability of communities, at census tract level, within a given county. SVI groups fifteen census-derived factors into four themes that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability Index combines all the variables to provide a comprehensive assessment. SVI data aided with the development of Table 1.

Data Collected from Applied Technologies Location Analysis and Statistics (ATLAS) The Analyst's Office collected commissioner precinct zip code data from Harris County's Applied Technologies Location Analysis and Statistics (ATLAS) System.

UPDATE: All analyses in this memo, except **Figure 3**, have been updated to reflect *individuals fully vaccinated*, rather than *individuals with at least one dose*.

Harris County Commissioners Court's Analyst's Office | 4

Example 1. Centers for Disease Control (CDC) Social Vulnerability Index, a tool to identify socially vulnerable communities.

BACKGROUND

The spread of the novel coronavirus, the cause of COVID-19, began in the United States in early 2020. Since then, local health entities have tracked the testing, number of confirmed positive cases, and deaths related to COVID-19.

In December 2020, two-dose vaccines from two producers, Moderna and Pfizer-BioNTech, were authorized for emergency use from the US Food and Drug Administration (FDA). In February 2021, the FDA authorized Johnson & Johnson's (J&J) one-dose vaccine for emergency use.

For the bulk of vaccine allocation, the federal government distributed COVID-19 vaccine doses to the Texas Department of State Health Services (DSHS), which then allocated doses to local providers in Harris County. Any facility, organization, or healthcare provider licensed to possess or administer vaccine or provide vaccination services is eligible to enroll as a designated provider. Providers include: emergency services; health centers (community, federally qualified, migrant, rural); hospitals; long-term care; medical clinics/doctor's offices; pharmacies; public health/government; federal long-term care; and other facilities. As of May 10, 2021, DSHS no longer provides direct allocations to local providers; providers are now able to order vaccines directly from DSHS on a daily basis as needed.

From December 2020 to March 28, 2021, vaccines were made available for individuals in DSHS's Phase 1A (front-line healthcare workers and residents of long-term care facilities) and 1B (individuals ages 65+ and individuals ages 16+ with "at least one chronic medical condition that puts them at increased risk for severe illness from the virus that causes COVID-19"). VII VIII ON March 29, 2021, Texas expanded vaccine eligibility to all individuals age 16 and older. Beginning May 12, 2021, Texas expanded vaccine eligibility to all individuals age 12 and older. Currently, all vaccines are authorized for individuals age 18 and older; the Pfizer vaccine is authorized for individuals age 12 and older. The population of individuals age 12 and older in Harris County is 3,852,215.*

viii Department of State Health Services (DSHS) COVID-19 Vaccine Allocation Phase 1B Definition

 $^{^{\}rm v}$ Department of State Health Services (DSHS) COVID-19 Vaccine Allocation Dashboard. Retrieved March 29, 2021, from https://tabexternal.dshs.texas.gov/t/THD/views/COVID-19 Vaccine in Texas Dashboard/Individuals Vaccinated

Department of State Health Services (DSHS) COVID-19 Vaccine Allocations. Retrieved May 27, 2021, from https://www.dshs.state.tx.us/coronavirus/immunize/vaccineallocations.aspx

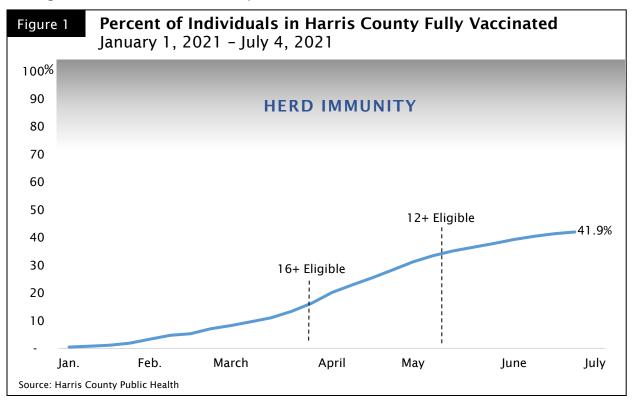
Department of State Health Services (DSHS) COVID-19 Vaccine Allocation Phase 1 Definition

^{**} COVID-19 Vaccine Information. (n.d.). Texas Department of State Health Services. Retrieved May 27, 2021, from https://dshs.texas.gov/covidvaccine/

^{*} Analyst's Office analysis of US Census Bureau, American Community Survey 2019 data. Previous versions of this memo used the US Census Bureau 2018 population data.

INDIVIDUALS IN HARRIS COUNTY FULLY VACCINATED

Figure 1 presents the percentage of Harris County individuals fully vaccinated between January 1, 2021 and July 4, 2021. This figure includes individuals vaccinated by Harris County Public Health (HCPH) and all other providers. HCPH reports countywide data regarding individuals fully vaccinated by week—the data presented below extends through the week of June 28 – July 4, 2021.



On March 29, 2021, as shown in **Figure 1**, Texas expanded vaccine eligibility to all individuals age 16 and older. Beginning May 12, 2021, Texas expanded vaccine eligibility to all individuals age 12 and older.

As of July 4, 2021, 41.9% (1,975,622) of all individuals in Harris County were fully vaccinated, meaning an individual has received both doses of either the Moderna or Pfizer vaccines or a single dose of the Johnson & Johnson vaccine.xii This reflects a 10.3% (from 1,790,902 to 1,975,622) increase from June 13, 2021 (the prior month's memo).

A total of 7.3% (343,207) of all individuals in Harris County were partially vaccinated as of July 5, $2021.x^{xiii}$

Individuals who are partially vaccinated and individuals fully vaccinated are mutually exclusive, meaning individuals partially vaccinated only includes individuals who have received one vaccine dose of a two-dose shot (Pfizer or Moderna) and individuals fully vaccinated includes individuals who have received either the Johnson & Johnson vaccine or two vaccine doses of Pfizer or Moderna.

Till Figure assumes Harris County's total population of 4,713,325, per American Community Survey 2019, 1 Year Estimates.

rigure assumes Harris County's total population of 4,713,325, per American Community Survey 2019, 1 Year Estimates.

NUMBER OF INDIVIDUALS PER 100,000 RESIDENTS FULLY VACCINATED BY ZIP CODE

Table 1 presents the number of individuals per 100,000 residents fully vaccinated by zip code. The table also includes the median income, Social Vulnerability Index (SVI) score, and commissioner precinct for each zip code. Commissioner precinct boundaries do not align with zip code boundaries; some zip codes are in multiple precincts. Precincts are listed in order of the greatest to least percentage of zip code land mass within the precinct.

Social vulnerability describes a community's ability to prevent human suffering and financial loss in the event of disaster (such as a hurricane or disease outbreak). SVI rankings are based on percentiles ranging from 0 to 1 (with higher values indicating greater vulnerability). SVI data is often presented using quartile classification. This analysis utilizes CDC's SVI classifications as follows: 0-0.25 (lowest vulnerability); 0.25-0.5 (moderate low); 0.50-0.75 (moderate high); and 0.75-1 (highest vulnerability).

Table 1 ranks zip codes within Harris County to show relative vulnerability in comparison to the rest of Harris County. The median of the median incomes of the fifteen Harris County zip codes with the **fewest number of individuals per 100,000 residents fully vaccinated is \$40,298.** The median of the median incomes of the fifteen Harris County zip codes with the **greatest number of individuals per 100,000 residents fully vaccinated is \$108,644.** XV XVI

xiv Centers for Disease Control (CDC) SVI 2016 Documentation.

Note: Significantly large numbers of residents who were administered a vaccine in zip code 77030 report living at the same address. HCPH suggests that this discrepancy may be caused by hospital staff entering the same address for employees to speed up the vaccination process. According to HCPH, the vaccination rate of greater than 100% in zip codes 77056, 77046, 77010 and 77030 is likely due to the low population relative to other zip codes, which means measured parameters are sensitive to bad data such as data entry errors, individuals using business addresses in lieu of a home residence, and other factors. For a full list of zip codes, see Appendix D. "Analysis excludes zip codes with small percentage of land mass in Harris County and zip code 77507, which has no income data available.

Table 1

Moderate High Vulnerability

Number of Individuals Per 100,000 Residents Fully Vaccinated by Zip Code, Median Income, SVI, and Commissioner Precinct

December 14, 2020 - July 5, 2021

Zip Codes With Fewest Number of Individuals Per 100,000 Residents Fully Vaccinated

Zip Code	Number Per 100k	Median Income	SVI	Commissioner Precinct(s)
77013	25,799	\$38,665	0.98	2,1
77060	26,390	\$31,006	0.94	1,2,4
77090	27,582	\$39,808	0.70	1,4
77506	28,018	\$41,804	0.95	2
77067	28,150	\$43,282	0.79	4,1
77081	29,056	\$33,502	0.81	3
77078	29,648	\$40,298	0.89	1,2
77050	29,926	\$48,500	0.71	1,2
77076	30,150	\$38,346	0.86	2,1
77336	30,675	\$68,596	0.30	2,4
77093	31,091	\$31,301	0.97	2,1
77039	31,291	\$36,769	0.73	2,1
77014	31,894	\$50,938	0.78	1,4
77547	31,951	\$46,176	0.66	2,1
77562	31,965	\$59,792	0.63	2

Zip Codes With Greatest Number of Individuals Per 100,000 Residents Fully Vaccinated

Zip Code	Number Per 100k	Median Income	SVI	Commissioner Precinct(s)
77005	64,920	\$192,380	0.03	3,1
77094	67,446	\$178,354	NA	3
77059	67,995	\$139,163	0.05	2
77006	68,253	\$85,956	0.09	1
77008	70,372	\$108,644	0.08	4,1
77007	72,485	\$125,653	0.01	4,1,2
77019	79,084	\$116,207	0.09	4,1
77098	81,799	\$91,138	0.07	4,1,3
77024	84,012	\$123,274	0.16	3,4
77002	85,690	\$71,369	0.42	1,2
77027	99,163	\$98,463	0.01	4,3
77010	100,696	\$250,001	0.02	1
77056	126,423	\$108,359	0.14	3
77046	145,876	\$87,891	0.10	4
77030	166,606	\$90,075	0.28	1

Source: American Community Survey (ACS) 2018 5-year estimates downloaded from Harris County's Applied Technologies Location Analysis and Statistics (ATLAS), Centers for Disease Control (CDC), and Harris County Public Health (HCPH)

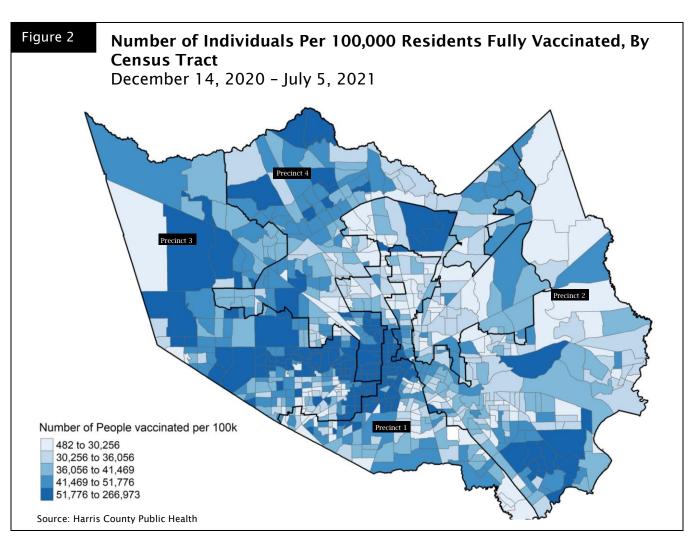
Highest Vulnerability

Moderate Low Vulnerability

Lowest Vulnerability

NUMBER OF INDIVIDUALS PER 100,000 RESIDENTS FULLY VACCINATED BY CENSUS TRACT

Figure 2 presents the number of individuals per 100,000 Harris County residents fully vaccinated by census tract.

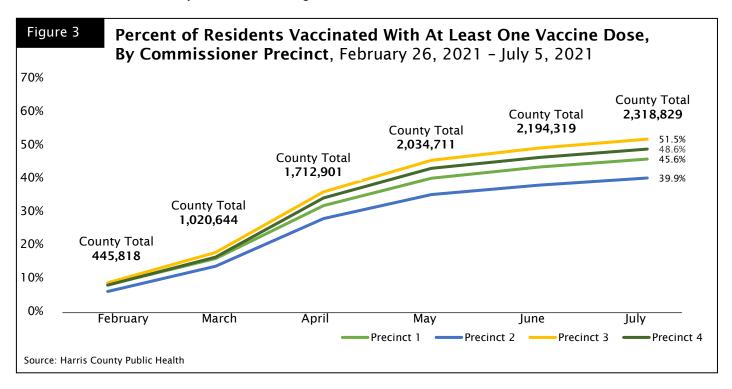


As of July 5, 2021, **41.9% (1,975,622) of Harris County residents were fully vaccinated**—51.3% of Harris County's eligible population, individuals age 12 and older.^{xvii}

xvii Figure assumes Harris County's total population of 4,713,325, per American Community Survey 2019, 1 Year Estimates. Eligible individuals include individuals ages 12 and over, this population is estimated to be 3,852,215 in Harris County, per Analyst's Office analysis of American Community Survey 2019, 1 Year Estimates.

PERCENT OF RESIDENTS VACCINATED WITH AT LEAST ONE DOSE BY COMMISSIONER PRECINCT

Figure 3 demonstrates the growth in the percent of residents vaccinated *with at least one dose* per commissioner precinct from February 26, 2021 through July 5, 2021 for all four Harris County commissioner precincts.



Between February 26, 2021 and July 5, 2021, 49.2% (2,318,829) of individuals in Harris County were vaccinated with at least one vaccine dose. *viii In the early months of the vaccine distribution in Harris County, between February and March, the number of individuals vaccinated with at least one dose increase by 128.9%. Recently, the growth in number of individuals vaccinated with at least one dose has slowed—only a 5.7% (from 2,194,319 to 2,318,829) increase between June 13, 2021 and July 5, 2021.

As of July 5, 2021:xix

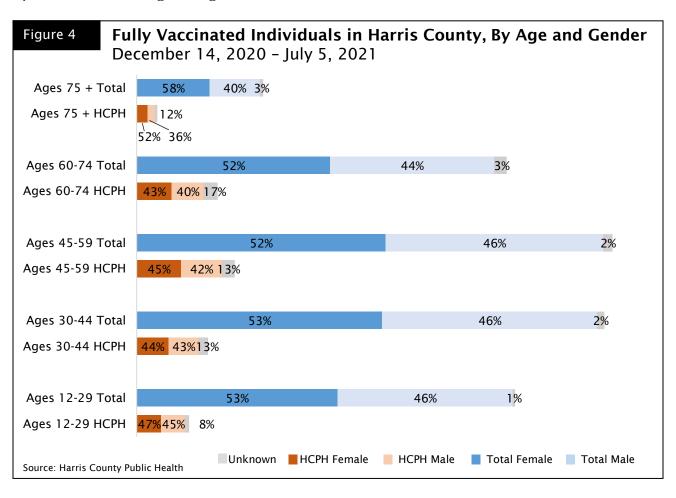
- 45.6% (523,863) of Precinct One residents were vaccinated with at least one vaccine dose—a 5.6% increase over the prior month;
- **39.9% (422,812) of Precinct Two residents** were vaccinated with at least one vaccine dose—a 5.7% increase over the prior month;
- **51.5% (652,717) of Precinct Three residents** were vaccinated with at least one vaccine dose—a 5.5% increase over the prior month; and
- **48.6% (586,979) of Precinct Four residents** were vaccinated with at least one vaccine dose—a 5.4% increase over the prior month.

xxiii Figure assumes Harris County's total population of 4,713,325, per American Community Survey 2019, 1 Year Estimates.

xxxx Precinct totals do not sum to County total because 112,458 individuals have addresses that cannot be geo-coded into a Precinct.

FULLY VACCINATED INDIVIDUALS BY AGE AND GENDER

Figure 4 and **Table 2**, which follows, reflect all individuals fully vaccinated by any provider in Harris County and those vaccinated by Harris County Public Health (HCPH) by the individual's age and gender.



Data in **Figure 4** sum to the age group total. Individuals ages 45 to 59 comprise the greatest share 26.2% (516,925) of fully vaccinated individuals. Individuals ages 75 and over comprise the smallest share 7.0% (137,467) of fully vaccinated individuals.

Of the individuals who are fully vaccinated by a Harris County provider, 53% (1,044,200) are female; 45% (892,590) are male; 0.01% (131) identify as "other"; and 2% (38,641) are recorded as unknown gender.^{xx}

xx Age and gender totals do not sum to vaccine doses administered totals due to some records having incomplete or incorrect data.

FULLY VACCINATED INDIVIDUALS BY AGE GROUP

Table 2 reflects all individuals fully vaccinated by providers in Harris County and those vaccinated by Harris County Public Health (HCPH) by the individual's age group and includes the age group percentage of the total vaccinated population. For context, **Table 2** also includes the percentage of Harris County's total population by age group.

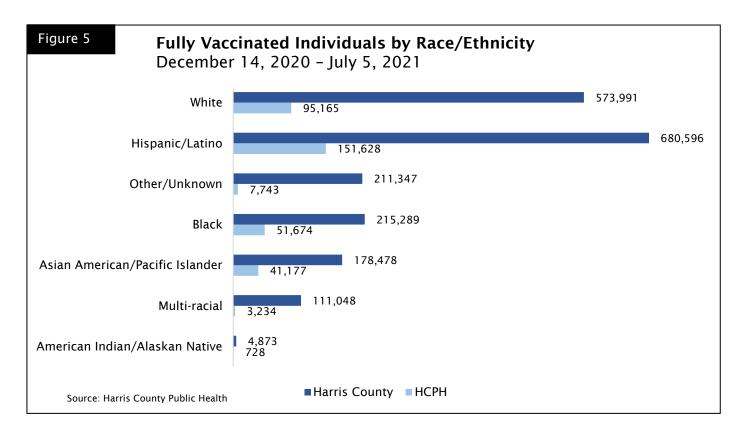
Table 2

rusic 2											
	Fully Vaccinated Individuals by Age Group December 14, 2020 - July 5, 2021										
	Age Group	Number of Individuals Vaccinated	Percentage of Harris County's Vaccinated Population ^{xxi}	Percentage of Harris County's Total Population ^{xxii}							
All Providers	75+	137,467	7.0%	5.0%							
НСРН	/5+	22,412	7.0%	J.U%							
All Providers	60-74	402,033	20.4%	14.8%							
НСРН	00-74	88,013	20.4%	14.0%							
All Providers	45-59	516,925	26.2%	21.8%							
НСРН	43-39	106,508	20.2%	21.0%							
All Providers	30-44	507,916	25.7%	27.20/							
НСРН	30-44	77,463	23.7%	27.2%							
All Providers	12-29	411,090	20.8%	21.10/							
НСРН	12-29	56,942	20.0%	31.1%							

Source: Harris County Public Health

FULLY VACCINATED INDIVIDUALS BY RACE AND ETHNICITY

Figure 5 and **Table 3**, which follows, reflect the race and ethnicity of individuals in Harris County who are fully vaccinated by any provider in Harris County and by Harris County Public Health (HCPH).^{xxiii}



xouil Note: Prior to February 4, 2021, providers were not required to report race/ethnicity when reporting doses to Texas Department of State Health Services (DSHS) because vaccine recipients are allowed to decline disclosing their race/ethnicity to a provider.

FULLY VACCINATED INDIVIDUALS BY RACE AND ETHNICITY

Table 3 reflects the race and ethnicity of individuals in Harris County who are fully vaccinated by providers in Harris County and by Harris County Public Health (HCPH).**
For context, **Table 3** also includes the percentage of Harris County's total population by race and ethnicity.

Table 3

Fully Vaccinated Individuals by Race/Ethnicity December 14, 2020 - July 5, 2021									
	Race/Ethnicity	Number of Individuals Vaccinated	Percentage of Harris County's Vaccinated Population	Percentage of Harris County's Total Population					
All Providers	White	573,991	29.1%	28.9%					
НСРН	white	95,165	29.1%	28.9%					
All Providers	Hispanis/Latino	680,596	34.4%	42.20/					
НСРН	Hispanic/Latino	151,628	34.4%	43.3%					
All Providers	Othor /University	211,347	10.7%	0.3%					
НСРН	Other/Unknown	7,743	10.7%	0.3%					
All Providers	Dia al-	215,289	10.00/	10.70/					
НСРН	Black	51,674	10.9%	18.7%					
All Providers	Asian American/	178,478	0.00/	7.10/					
НСРН	Pacific Islander	41,177	9.0%	7.1%					
All Providers	Madel an alal	111,048	F. 60/	1.60/					
НСРН	Multi-racial	3,234	5.6%	1.6%					
All Providers	American Indian/	4,873	0.2%	0.20/					
НСРН	Alaskan Native	728	0.2%	0.2%					

Source: Harris County Public Health

xxiv Note: Prior to February 4, 2021, providers were not required to report race/ethnicity when reporting doses to Texas Department of State Health Services (DSHS) because vaccine recipients are allowed to decline disclosing their race/ethnicity to a provider.

INDIVIDUALS FULLY VACCINATED BY RACE AND ETHNICITY AND COMMISSIONER PRECINCT

Table 4 reflects the race and ethnicity of individuals in Harris County who are vaccinated with at least one dose by providers in Harris County by Commissioner Precinct. For context, **Table 4** also includes the percentage of each Commissioner Precinct's total population by race and ethnicity.

Table 4

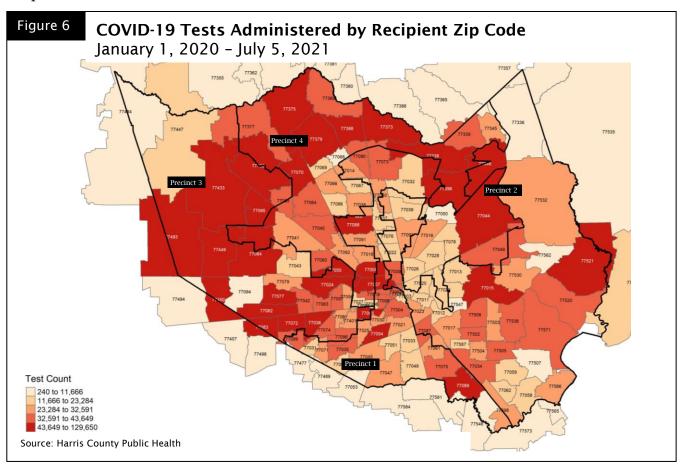
Individuals Fully Vaccinated by Race/Ethnicity, By Commissioner Precinct December 14, 2020 - July 5, 2021

Percentage of Percentage of **Number of Individuals** Race/Ethnicity Precinct's Vaccinated **Total Precinct** Vaccinated **Population Population** Precinct 1 White 88.478 19.8% 17.1% Hispanic/Latino 153,324 34.4% 41.3% Other/Unknown 46,034 10.3% 0.2% Black 91,963 20.6% 34.5% Asian Am./Pacific Islander 34,271 7.7% 5.4% Multi-racial 31,231 7.0% 1.4% Am. Indian/Alaskan Native 1,044 0.2% 0.1% Precinct 2 White 102,373 27.1% 26.5% Hispanic/Latino 191,624 50.7% 60.8% Other/Unknown 30,630 8.1% 0.1% Black 21,090 5.6% 8.8% Asian Am./Pacific Islander 15.541 4.1% 2.5% Multi-racial 15.688 4.2% 1.2% Am. Indian/Alaskan Native 761 0.2% 0.1% Precinct 3 White 183,526 33% 36.0% 29% Hispanic/Latino 162.254 34.8% 55,361 0.3% Other/Unknown 10% Black 46.427 8% 15.0% Asian Am./Pacific Islander 75,451 14% 11.8% 33,380 6% Multi-racial 1.9% Am. Indian/Alaskan Native 0% 1,554 0.2% Precinct 4 White 182.672 36.4% 37.9% Hispanic/Latino 149.033 29.7% 37.0% 47,767 9.5% Other/Unknown 0.3% Black 45,367 9.0% 15.5% Asian Am./Pacific Islander 47,896 9.5% 7.5% 27,643 5.5% 1.6% Multi-racial Am. Indian/Alaskan Native 1,334 0.3% 0.2%

Sources: Harris County Public Health, Harris County Budget Management Department

COVID-19 TESTS BY ZIP CODE

Figure 6 reflects the total number of COVID-19 polymerase chain reaction (PCR) tests administered to Harris County residents by all providers in Harris County by zip code, and **Table 5** reflects the number of COVID-19 PCR tests administered by commissioner precinct.xxv



Between January 1, 2020 and July 5, 2021, providers in Harris County **administered 4,779,252 COVID-19 tests**. For a full list of tests administered by recipient zip code, see Appendix A.xxvi

Table 5

COVID-19 Tests Administered, by Commissioner Precinct and for Harris County, January 1, 2020 - July 5, 2021

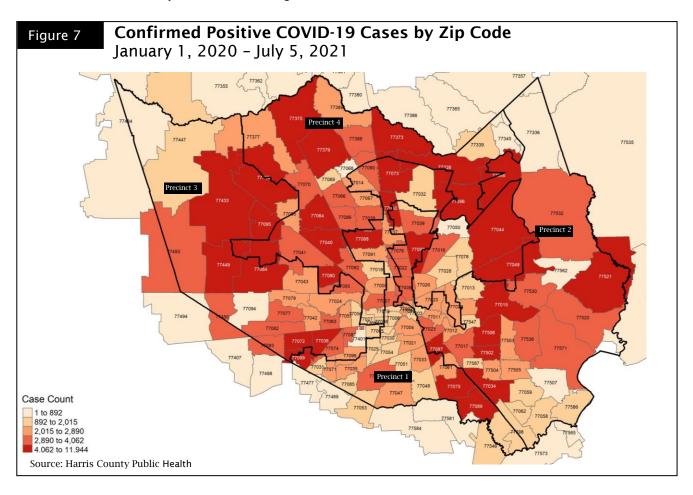
Precinct 1	Precinct 2	Precinct 3	Precinct 4	Total Tests
1,121,433	1,017,960	1,201,146	1,153,436	4,779,252

^{xxv} PCR refers to the polymerase chain reaction tests commonly used to test for COVID-19.

Precinct totals do not sum to Total Tests because 285,277 tests administered have addresses that cannot be geo-coded into a Precinct.

CONFIRMED POSITIVE COVID-19 CASES BY ZIP CODE

Figure 7 reflects the total number of COVID-19 positive cases confirmed by a PCR test in Harris County, reported by zip code and **Table 6** reflects the number of positive COVID-19 cases by commissioner precinct.xxvii



Between January 1, 2020 and July 5, 2021, there were **404,843 confirmed positive** cases of COVID-19 in Harris County. For a full list of positive cases by zip code, see Appendix B.xxviii

Table 6

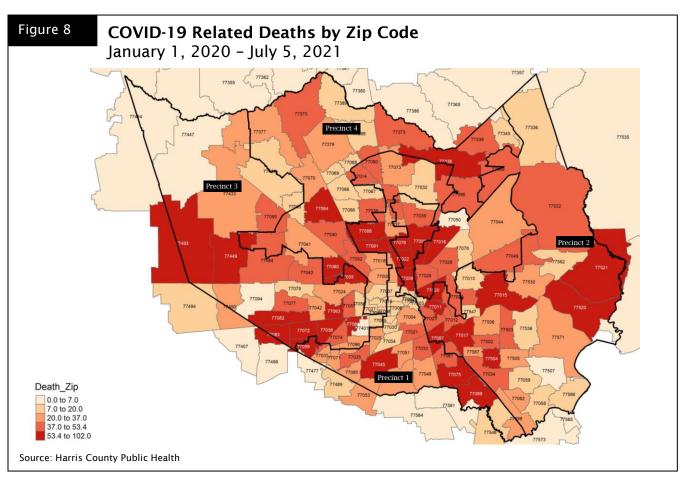
Con	Confirmed Positive Cases by Commissioner Precinct and for Harris County, January 1, 2020 – June 13, 2021									
Prec	inct 1	Pred	cinct 2	Pred	inct 3	Pred	cinct 4	County		
Number of Cases	% of Precinct Population	Number of Cases	% of Precinct Population	Number of Cases	% of Precinct Population	Number of Cases	% of Precinct Population	Number of Cases	% of County Population	
105,625	9.2%	102,602	9.2%	97,637	7.7%	96,375	8.0%	404,843	8.6%	

XXVII PCR refers to the polymerase chain reaction tests commonly used to test for COVID-19.

Precinct totals do not sum to Total Tests because 2,604 tests administered have addresses that cannot be geo-coded into a Precinct.

CONFIRMED COVID-19 RELATED DEATHS BY ZIP CODE

Figure 8 reflects the total number of confirmed COVID-19-related deaths in Harris County by zip code and **Table 7** reflects the number of COVID-19-related deaths by commissioner precinct.



Between January 1, 2020 and July 5, 2021, there were **4,914 confirmed COVID-19-related deaths** in Harris County. For a full list of deaths by zip code, see Appendix C. xxix

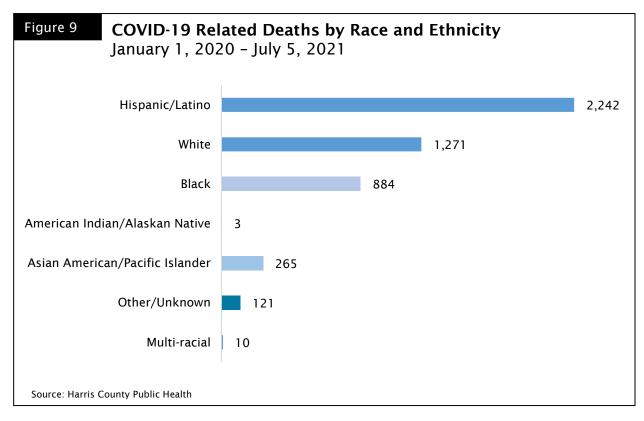
Table 7

COVI	COVID-19 Related Deaths by Commissioner Precinct and for Harris County, January 1, 2020 - July 5, 2021									
Pred	Precinct 1 Precinct 2		Precinct 3		Precinct 4		County Total			
Number of Deaths	% of Precinct Population	Number of Deaths	% of Precinct Population	Number of Deaths	% of Precinct Population	Number of Deaths	% of Precinct Population	Number of Deaths	% of County Population	
1,466	0.13%	1,433	0.13%	1,093	0.09%	898	0.07%	4,914	0.10%	

xxix Precinct totals do not sum to Total Deaths because 24 deaths have addresses that cannot be geo-coded into a precinct.

COVID-19 RELATED DEATHS BY RACE AND ETHNICITY

Figure 9 reflects the total number of confirmed COVID-19-related deaths in Harris County by race and ethnicity.^{xxx}



Of the 4,914 individuals in Harris County who died of a COVID-19-related death: XXXXI

- 45.6% (2,242) identified as Hispanic, and for context, 42.9% of County residents identify as Hispanic;
- 25.9% (1,271) identified as White, and for context, 29.6% of County residents identify as White;
- 18.0% (884) identified as Black, and for context, 18.6% of County residents identify as Black;
- 0.1% (0-5) identified as American Indian or Alaskan Native, and for context,
 0.2% of County residents identify as American Indian or Alaskan Native;
- 5.4% (265) identified as Asian or Pacific Islander, and for context, 7.0% of County residents identify as Asian, Pacific Islander, or Native Hawaiian;
- 2.5% (121) were recorded as Other/unknown race and ethnicity; and
- 0.2% (10) identified as Multi-racial, and for context, 1.5% of County residents identify as Two or More Races.

[∝] Race and ethnicity totals do not sum to Total Precinct Deaths because 118 deaths do not have race and ethnicity data available.

xxxi County-level race and ethnicity data are derived from US Census Bureau Population Estimates.

APPENDIX A

	Total COVID-19 Tests Administered by Zip Code Ordered by Tests Administered, January 1, 2020 – July 5, 2021									
Zip Code	Tests Administered	Zip Code	Tests Administered	Zip Code	Tests Administered	Zip Code	Tests Administered			
77565	240	77029	15,475	77017	29,363	77339	42,573			
77362	261	77085	15,744	77504	29,983	77064	43,436			
77381	275	77069	15,885	77081	30,686	77088	43,969			
77382	334	77033	16,134	77056	30,814	77388	44,629			
77380	442	77011	16,163	77532	30,936	77015	44,663			
77354	707	77587	16,198	77079	31,015	77008	45,969			
77507	833	77003	16,386	77041	31,403	77024	47,281			
77477	872	77058	16,761	77047	31,556	77054	47,680			
77355	890	77026	17,475	77093	32,054	77055	47,796			
77386	1,100	77447	17,480	77045	32,121	77070	47,905			
77535	1,123	77059	18,405	77025	32,488	77072	48,006			
77489	1,140	77067	20,920	77505	32,617	77044	49,304			
77010	1,255	77098	20,988	77087	32,667	77338	51,687			
77581	1,533	77039	21,539	77042	32,760	77082	51,884			
77357	1,537	77022	22,048	77035	32,908	77036	52,731			
77053	1,651	77086	22,104	77019	33,817	77007	53,132			
77498	1,716	77048	22,236	77065	34,221	77373	53,847			
77046	2,245	77020	22,269	77506	34,415	77089	56,355			
77365	2,278	77027	22,674	77006	34,425	77077	58,331			
77407	2,332	77043	22,823	77080	34,518	77493	60,532			
77584	2,402	77076	23,206	77096	34,552	77521	62,953			
77573	2,625	77062	23,255	77075	34,954	77375	63,037			
77494	3,266	77061	23,400	77034	34,965	77450	64,551			
77546	3,363	77030	23,431	77520	35,045	77083	66,912			
77050	3,468	77091	23,864	77073	35,697	77396	71,285			
77562	7,552	77038	24,226	77074	36,665	77346	74,808			
77094	8,592	77060	24,811	77057	37,026	77095	76,063			
77484	9,027	77586	25,008	77377	37,401	77379	77,802			
77068	9,228	77021	25,954	77389	37,679	77429	86,754			
77547	9,367	77016	26,125	77090	37,745	77084	93,045			
77336	11,658	77092	26,231	77049	38,289	77433	101,240			
77078	11,672	77023	26,415	77002	38,337	77005	114,340			
77013	12,002	77014	26,425	77536	38,400	77449	129,650			
77031	12,400	77066	26,515	77571	39,820					
77523	13,576	77071	27,200	77004	39,898					
77028	13,739	77345	27,524	77009	39,919					
77037	13,754	77401	28,152	77063	39,981					
77032	14,318	77018	29,105	77040	41,241					
77012	14,485	77503	29,113	77099	41,396					
77051	15,394	77530	29,320	77502	42,158					

APPENDIX B

Total COVID-19 Confirmed Positive Cases by Zip Code										
	Ordered by Positive Cases, January 1, 2020 – July 5, 2021									
7. 6. 1	Positive		Positive		Positive		Positive			
Zip Code	Cases	Zip Code	Cases	Zip Code	Cases	Zip Code	Cases			
77362	1-5	77547	1,143	77033	2,465	77493	3,949			
77565	1-5	77027	1,199	77504	2,527	77070	3,957			
77381	1-5	77058	1,293	77377	2,576	77077	3,976			
77382	1-5	77339	1,357	77091	2,607	77055	3,989			
77355	1-5	77031	1,403	77389	2,648	77081	3,994			
77535	1-5	77006	1,439	77042	2,662	77082	4,056			
77354	6	77051	1,475	77067	2,693	77060	4,070			
77386	8	77078	1,515	77020	2,742	77075	4,072			
77380	11	77056	1,555	77014	2,759	77506	4,077			
77357	16	77025	1,560	77503	2,774	77034	4,160			
77573	19	77062	1,574	77065	2,791	77080	4,188			
77498	28	77586	1,581	77035	2,830	77049	4,204			
77365	36	77013	1,614	77047	2,845	77064	4,207			
77407	45	77028	1,627	77057	2,876	77338	4,230			
77507	49	77019	1,655	77063	2,894	77087	4,259			
77010	49	77054	1,667	77066	2,914	77040	4,324			
77584	58	77032	1,701	77016	2,919	77502	4,668			
77523	76	77053	1,705	77092	2,934	77375	4,686			
77581	115	77598	1,779	77532	2,952	77099	4,748			
77046	123	77048	1,842	77022	2,974	77044	4,814			
77477	166	77587	1,935	77041	3,078	77073	4,877			
77484	229	77018	1,943	77007	3,103	77373	5,031			
77050	392	77085	2,014	77023	3,144	77072	5,267			
77494	437	77011	2,019	77450	3,172	77093	5,281			
77489	525	77021	2,032	77039	3,218	77088	5,316			
77094	587	77004	2,037	77536	3,241	77396	5,415			
77562	683	77002	2,062	77571	3,242	77521	5,505			
77336	743	77026	2,128	77086	3,294	77095	5,505			
77345	825	77096	2,155	77045	3,340	77089	5,613			
77068	860	77029	2,190	77038	3,357	77015	5,769			
77401	874	77043	2,246	77090	3,373	77346	5,824			
77059	904	77037	2,249	77009	3,479	77379	5,841			
77030	908	77012	2,292	77076	3,600	77429	5,997			
77098	950	77505	2,358	77530	3,600	77036	6,325			
77546	1,059	77024	2,395	77074	3,618	77433	7,325			
77005	1,103	77071	2,400	77017	3,723	77084	10,677			
77003	1,114	77079	2,423	77520	3,731	77449	11,944			
77447	1,133	77061	2,439	77388	3,851					
77069	1,139	77008	2,445	77083	3,940					

APPENDIX C

	Total Confirmed COVID-19 Related Deaths by Zip Code									
	Ordered by Number of Deaths, January 1, 2020 – July 5, 2021									
Zip Code	COVID	Zip Code	COVID	Zip Code	COVID	Zip Code	COVID			
	Deaths		Deaths		Deaths		Deaths			
77362	1-5	77586	9	77450	28	77346	51			
77565	1-5	77546	10	77073	28	77074	52			
77381	1-5	77007	10	77008	29	77095	52			
77382	1-5	77336	11	77571	29	77023	53			
77355	1-5	77389	11	77053	30	77034	53			
77535	1-5	77065	12	77598	31	77091	54			
77354	1-5	77547	13	77506	32	77063	55			
77386	1-5	77066	13	77530	33	77075	56			
77380	1-5	77388	14	77433	33	77081	57			
77357	1-5	77058	15	77004	35	77015	57			
77573	1-5	77056	15	77070	35	77504	58			
77498	1-5	77079	15	77044	36	77064	58			
77365	1-5	77086	15	77028	37	77493	60			
77407	1-5	77562	16	77090	37	77011	62			
77507	1-5	77013	16	77057	38	77017	62			
77010	1-5	77003	17	77021	39	77076	63			
77584	1-5	77078	17	77092	40	77045	64			
77523	1-5	77536	17	77039	40	77080	65			
77581	1-5	77032	19	77038	40	77016	66			
77046	1-5	77067	19	77033	41	77521	67			
77477	1-5	77429	19	77043	42	77020	68			
77484	1-5	77031	20	77029	43	77089	68			
77094	1-5	77587	20	77339	44	77083	69			
77447	1-5	77096	21	77077	44	77082	69			
77050	6	77051	23	77014	45	77009	70			
77401	6	77377	23	77532	45	77099	71			
77494	7	77379	23	77084	45	77093	73			
77068	7	77025	24	77503	46	77520	74			
77005	7	77024	24	77049	46	77022	76			
77054	7	77071	24	77040	46	77055	77			
77489	7	77041	25	77373	47	77088	78			
77059	7	77085	26	77026	48	77338	80			
77069	7	77037	26	77061	48	77087	80			
77027	7	77505	26	77396	48	77036	90			
77006	7	77062	27	77035	49	77449	95			
77030	8	77042	27	77502	49	77072	102			
77019	8	77048	28	77012	51					
77345	9	77018	28	77060	51					
77098	9	77047	28	77375	51					

APPENDIX D

Number of Individuals Per 100,000 Residents Fully Vaccinated and Social Vulnerability Index (SVI), Ordered by Residents Vaccinated, December 14, 2020 - July 5, 2021****

Zip		,)raerea i	oy kesia	ents vaco	cinatea, i	Decembe	r 14, 202	O – July	5, ZUZ I^^	A.I.	
77060 26,390 0.94 77028 34,771 0.84 77063 41,298 0.57 77041 51,377 0.31 77090 27,582 0.70 77571 35,163 0.38 77047 41,599 0.55 77375 51,426 0.45 77067 28,180 0.95 77396 35,488 0.51 77055 41,645 0.68 77039 52,023 0.47 77067 28,150 0.79 77086 35,584 0.50 77085 41,651 0.60 77054 56,254 0.26 77078 29,648 0.89 77031 35,846 0.64 77071 41,852 0.66 77079 56,420 0.27 77050 29,926 0.71 77015 35,975 0.76 77011 42,027 0.96 77033 55,420 0.27 77076 30,150 0.86 77521 35,993 0.64 77084 42,139 0.31 77025 56,420 <td< td=""><td></td><td>100k</td><td>SVI</td><td></td><td>100k</td><td>SVI</td><td></td><td>100k</td><td>SVI</td><td></td><td>100k</td><td>SVI</td></td<>		100k	SVI		100k	SVI		100k	SVI		100k	SVI
77090 27,582 0.70 77571 35,163 0.38 77047 41,599 0.55 77375 51,426 0.45 77506 28,018 0.95 77396 35,488 0.51 77055 41,645 0.68 77089 52,083 0.47 77067 28,150 0.79 77086 35,568 0.78 77449 41,652 0.36 77077 52,722 0.29 77078 29,968 0.81 77073 35,734 0.50 77085 41,851 0.60 77074 56,254 0.26 77078 29,648 0.89 77031 35,846 0.64 77071 41,852 0.68 77079 56,420 0.27 77076 30,150 0.86 77521 35,993 0.64 77044 42,129 0.36 77433 88,483 0.11 77033 31,091 0.97 77080 36,099 0.83 77064 42,334 0.47 77389 61,835 <td< td=""><td>77013</td><td>25,799</td><td>0.98</td><td>77012</td><td>34,724</td><td>0.99</td><td>77040</td><td>40,396</td><td>0.55</td><td>77450</td><td>51,059</td><td>0.18</td></td<>	77013	25,799	0.98	77012	34,724	0.99	77040	40,396	0.55	77450	51,059	0.18
77506 28,018 0.95 77396 35,488 0.51 77055 41,645 0.68 77089 52,083 0.47 77067 28,150 0.79 77086 35,568 0.78 77449 41,652 0.36 77077 52,722 0.29 77081 29,056 0.81 77073 35,846 0.64 77071 41,851 0.60 77079 56,420 0.27 77050 29,926 0.71 77015 35,975 0.76 77011 42,027 0.96 77003 57,660 0.61 77076 30,150 0.86 77521 35,993 0.64 77084 42,129 0.36 7733 58,483 0.11 77336 30,675 0.30 77504 36,099 0.83 77044 42,319 0.41 77025 58,560 0.32 77033 31,291 0.73 77502 36,136 0.89 77032 42,390 0.99 77533 62,370	77060	26,390	0.94	77028	34,771	0.84	77063	41,298	0.57	77041	51,377	0.31
77067 28,150 0.79 77086 35,568 0.78 77449 41,652 0.36 77077 52,722 0.29 77081 29,056 0.81 77073 35,734 0.50 77085 41,851 0.60 77074 56,254 0.26 77078 29,648 0.89 77031 35,846 0.64 77071 41,852 0.68 77093 56,420 0.27 77076 30,150 0.86 77521 35,995 0.76 77011 42,027 0.96 77003 57,260 0.61 77076 30,150 0.86 77521 35,993 0.64 77084 42,129 0.36 77433 58,483 0.11 77336 30,675 0.30 77504 36,092 0.88 77044 42,319 0.41 77025 58,560 0.32 77093 31,091 0.97 77080 36,099 0.83 77044 42,319 0.41 77053 61,335 <td< td=""><td>77090</td><td>27,582</td><td>0.70</td><td>77571</td><td>35,163</td><td>0.38</td><td>77047</td><td>41,599</td><td>0.55</td><td>77375</td><td>51,426</td><td>0.45</td></td<>	77090	27,582	0.70	77571	35,163	0.38	77047	41,599	0.55	77375	51,426	0.45
77081 29,056 0.81 77073 35,734 0.50 77085 41,851 0.60 77054 56,254 0.26 77078 29,648 0.89 77031 35,846 0.64 77071 41,852 0.68 77079 56,420 0.27 77050 29,926 0.71 77015 35,975 0.76 77011 42,027 0.96 77003 57,260 0.61 77076 30,150 0.86 77521 35,993 0.64 77084 42,029 0.36 77433 58,483 0.11 77336 30,675 0.30 77504 36,092 0.88 77044 42,319 0.41 77025 58,560 0.32 77093 31,091 0.97 77080 36,099 0.83 77064 42,334 0.47 77389 61,835 0.14 77031 31,991 0.73 75502 36,136 0.89 77032 42,390 0.99 77053 62,370 <td< td=""><td>77506</td><td>28,018</td><td>0.95</td><td>77396</td><td>35,488</td><td>0.51</td><td>77055</td><td>41,645</td><td>0.68</td><td>77089</td><td>52,083</td><td>0.47</td></td<>	77506	28,018	0.95	77396	35,488	0.51	77055	41,645	0.68	77089	52,083	0.47
77078 29,648 0.89 77031 35,846 0.64 77071 41,852 0.68 77079 56,420 0.27 77050 29,926 0.71 77015 35,975 0.76 77011 42,027 0.96 77003 57,260 0.61 77076 30,150 0.86 77521 35,993 0.64 77084 42,129 0.36 77433 58,483 0.11 77033 30,675 0.30 77504 36,092 0.88 77044 42,239 0.41 77025 58,560 0.32 77033 31,091 0.97 77080 36,099 0.83 77064 42,334 0.47 77389 61,835 0.14 77014 31,994 0.78 77338 36,226 0.58 77070 42,612 0.49 77401 62,641 0.03 77547 31,955 0.66 77075 36,276 0.61 77034 42,869 0.54 77004 67,420 <td< td=""><td>77067</td><td>28,150</td><td>0.79</td><td>77086</td><td>35,568</td><td>0.78</td><td>77449</td><td>41,652</td><td>0.36</td><td>77077</td><td>52,722</td><td>0.29</td></td<>	77067	28,150	0.79	77086	35,568	0.78	77449	41,652	0.36	77077	52,722	0.29
77050 29,926 0.71 77015 35,975 0.76 77011 42,027 0.96 77003 57,260 0.61 77076 30,150 0.86 77521 35,993 0.64 77084 42,129 0.36 77433 58,483 0.11 77336 30,675 0.30 77504 36,099 0.83 77044 42,339 0.41 77025 58,560 0.32 77093 31,091 0.97 77080 36,099 0.83 77044 42,334 0.47 77389 61,835 0.14 77039 31,291 0.73 77502 36,136 0.89 77032 42,390 0.99 77053 62,370 0.72 77014 31,951 0.66 77075 36,276 0.61 77082 42,869 0.54 77005 64,920 0.03 77562 31,965 0.63 77020 36,425 0.97 77346 43,288 0.12 77094 67,446 <td< td=""><td>77081</td><td>29,056</td><td>0.81</td><td>77073</td><td>35,734</td><td>0.50</td><td>77085</td><td>41,851</td><td>0.60</td><td>77054</td><td>56,254</td><td>0.26</td></td<>	77081	29,056	0.81	77073	35,734	0.50	77085	41,851	0.60	77054	56,254	0.26
77076 30,150 0.86 77521 35,993 0.64 77084 42,129 0.36 77433 58,483 0.11 77336 30,675 0.30 77504 36,092 0.88 77044 42,319 0.41 77025 58,560 0.32 77093 31,091 0.97 77502 36,136 0.89 77034 42,334 0.47 77389 61,835 0.14 77039 31,291 0.73 77502 36,136 0.89 77032 42,390 0.99 77053 62,370 0.72 77014 31,981 0.66 77075 36,276 0.61 77082 42,869 0.54 77004 62,641 0.03 77562 31,965 0.63 77022 36,425 0.97 77346 43,288 0.12 77094 67,446 NA 77503 32,007 0.82 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0	77078	29,648	0.89	77031	35,846	0.64	77071	41,852	0.68	77079	56,420	0.27
77336 30,675 0.30 77504 36,092 0.88 77044 42,319 0.41 77025 58,560 0.32 77093 31,091 0.97 77080 36,099 0.83 77064 42,334 0.47 77389 61,835 0.14 77039 31,291 0.73 77502 36,136 0.89 77032 42,390 0.99 77053 62,370 0.72 77014 31,894 0.78 77338 36,226 0.58 77070 42,612 0.49 77401 62,641 0.03 77547 31,951 0.66 77075 36,276 0.61 77082 42,869 0.54 77095 64,920 0.03 77503 32,007 0.82 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0.05 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77007 72,485 <td< td=""><td>77050</td><td>29,926</td><td>0.71</td><td>77015</td><td>35,975</td><td>0.76</td><td>77011</td><td>42,027</td><td>0.96</td><td>77003</td><td>57,260</td><td>0.61</td></td<>	77050	29,926	0.71	77015	35,975	0.76	77011	42,027	0.96	77003	57,260	0.61
77093 31,091 0.97 77080 36,099 0.83 77064 42,334 0.47 77389 61,835 0.14 77039 31,291 0.73 77502 36,136 0.89 77032 42,390 0.99 77053 62,370 0.72 77014 31,894 0.78 77338 36,226 0.58 77070 42,612 0.49 77401 62,641 0.03 77547 31,951 0.66 77075 36,276 0.61 77082 42,869 0.54 77005 64,920 0.03 77562 31,965 0.63 77022 36,425 0.97 77346 43,288 0.12 77059 67,995 0.05 77033 32,007 0.82 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0.05 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77088 70,372 <td< td=""><td>77076</td><td>30,150</td><td>0.86</td><td>77521</td><td>35,993</td><td>0.64</td><td>77084</td><td>42,129</td><td>0.36</td><td>77433</td><td>58,483</td><td>0.11</td></td<>	77076	30,150	0.86	77521	35,993	0.64	77084	42,129	0.36	77433	58,483	0.11
77039 31,291 0.73 77502 36,136 0.89 77032 42,390 0.99 77053 62,370 0.72 77014 31,894 0.78 77338 36,226 0.58 77070 42,612 0.49 77401 62,641 0.03 77547 31,951 0.66 77075 36,276 0.61 77082 42,869 0.54 77005 64,920 0.03 77562 31,965 0.63 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0.05 77091 32,089 0.92 77536 36,599 0.44 77095 44,656 0.23 77006 68,253 0.09 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77008 70,372 0.08 77016 32,842 0.93 77373 37,410 0.74 77586 44,875 0.18 77019 77624	77336	30,675	0.30	77504	36,092	0.88	77044	42,319	0.41	77025	58,560	0.32
77014 31,894 0.78 77338 36,226 0.58 77070 42,612 0.49 77401 62,641 0.03 77547 31,951 0.66 77075 36,276 0.61 77082 42,869 0.54 77005 64,920 0.03 77562 31,965 0.63 77022 36,425 0.97 77346 43,288 0.12 77094 67,446 NA 77503 32,007 0.82 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0.05 77091 32,089 0.92 77536 36,599 0.44 77095 44,656 0.23 77006 68,253 0.09 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77008 70,372 0.08 77036 32,342 0.93 77373 37,119 0.74 77568 44,875 0.18 77019 790707 7	77093	31,091	0.97	77080	36,099	0.83	77064	42,334	0.47	77389	61,835	0.14
77547 31,951 0.66 77075 36,276 0.61 77082 42,869 0.54 77005 64,920 0.03 77562 31,965 0.63 77022 36,425 0.97 77346 43,288 0.12 77094 67,446 NA 77503 32,007 0.82 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0.05 77091 32,089 0.92 77536 36,599 0.44 77095 44,656 0.23 77006 68,253 0.09 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77008 70,372 0.08 77036 32,342 0.93 77373 37,311 0.30 77377 44,740 0.24 77007 72,485 0.01 77016 32,683 0.89 77035 37,410 0.74 77586 44,875 0.18 77019 79,084 0	77039	31,291	0.73	77502	36,136	0.89	77032	42,390	0.99	77053	62,370	0.72
77562 31,965 0.63 77022 36,425 0.97 77346 43,288 0.12 77094 67,446 NA 77503 32,007 0.82 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0.05 77091 32,089 0.92 77536 36,599 0.44 77095 44,656 0.23 77006 68,253 0.09 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77008 70,372 0.08 77036 32,342 0.93 77373 37,331 0.30 77377 44,740 0.24 77007 72,485 0.01 77016 32,683 0.89 77035 37,410 0.74 77586 44,875 0.18 77019 79,084 0.09 77520 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 0	77014	31,894	0.78	77338	36,226	0.58	77070	42,612	0.49	77401	62,641	0.03
77503 32,007 0.82 77020 36,429 0.89 77388 43,644 0.13 77059 67,995 0.05 77091 32,089 0.92 77536 36,599 0.44 77095 44,656 0.23 77006 68,253 0.09 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77008 70,372 0.08 77036 32,342 0.93 77373 37,311 0.30 77377 44,740 0.24 77007 72,485 0.01 77016 32,683 0.89 77035 37,410 0.74 77586 44,875 0.18 77019 79,084 0.09 77520 32,733 0.82 77021 37,719 0.74 77068 45,437 0.43 77098 81,799 0.07 77026 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 <td< td=""><td>77547</td><td>31,951</td><td>0.66</td><td>77075</td><td>36,276</td><td>0.61</td><td>77082</td><td>42,869</td><td>0.54</td><td>77005</td><td>64,920</td><td>0.03</td></td<>	77547	31,951	0.66	77075	36,276	0.61	77082	42,869	0.54	77005	64,920	0.03
77091 32,089 0.92 77536 36,599 0.44 77095 44,656 0.23 77006 68,253 0.09 77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77008 70,372 0.08 77036 32,342 0.93 77373 37,331 0.30 77377 44,740 0.24 77007 72,485 0.01 77016 32,683 0.89 77035 37,410 0.74 77586 44,875 0.18 77019 79,084 0.09 77520 32,733 0.82 77021 37,719 0.74 77068 45,437 0.43 77098 81,799 0.07 77026 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 0.16 77031 32,831 0.70 77042 39,033 0.38 77069 46,805 0.22 77027 99,163 <td< td=""><td>77562</td><td>31,965</td><td>0.63</td><td>77022</td><td>36,425</td><td>0.97</td><td>77346</td><td>43,288</td><td>0.12</td><td>77094</td><td>67,446</td><td>NA</td></td<>	77562	31,965	0.63	77022	36,425	0.97	77346	43,288	0.12	77094	67,446	NA
77037 32,175 0.69 77045 37,144 0.84 77429 44,717 0.06 77008 70,372 0.08 77036 32,342 0.93 77373 37,331 0.30 77377 44,740 0.24 77007 72,485 0.01 77016 32,683 0.89 77035 37,410 0.74 77586 44,875 0.18 77019 79,084 0.09 77520 32,733 0.82 77021 37,719 0.74 77068 45,437 0.43 77098 81,799 0.07 77026 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 0.16 77033 32,799 0.93 77087 38,569 1.00 77083 46,274 0.53 77002 85,690 0.42 77051 32,831 0.70 77042 39,033 0.38 77069 46,805 0.52 77010 100,696 <t< td=""><td>77503</td><td>32,007</td><td>0.82</td><td>77020</td><td>36,429</td><td>0.89</td><td>77388</td><td>43,644</td><td>0.13</td><td>77059</td><td>67,995</td><td>0.05</td></t<>	77503	32,007	0.82	77020	36,429	0.89	77388	43,644	0.13	77059	67,995	0.05
77036 32,342 0.93 77373 37,331 0.30 77377 44,740 0.24 77007 72,485 0.01 77016 32,683 0.89 77035 37,410 0.74 77586 44,875 0.18 77019 79,084 0.09 77520 32,733 0.82 77021 37,719 0.74 77068 45,437 0.43 77098 81,799 0.07 77026 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 0.16 77033 32,799 0.93 77087 38,569 1.00 77083 46,274 0.53 77002 85,690 0.42 77061 32,831 0.70 77042 39,033 0.38 77069 46,805 0.22 77027 99,163 0.01 77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 <t< td=""><td>77091</td><td>32,089</td><td>0.92</td><td>77536</td><td>36,599</td><td>0.44</td><td>77095</td><td>44,656</td><td>0.23</td><td>77006</td><td>68,253</td><td>0.09</td></t<>	77091	32,089	0.92	77536	36,599	0.44	77095	44,656	0.23	77006	68,253	0.09
77016 32,683 0.89 77035 37,410 0.74 77586 44,875 0.18 77019 79,084 0.09 77520 32,733 0.82 77021 37,719 0.74 77068 45,437 0.43 77098 81,799 0.07 77026 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 0.16 77033 32,799 0.93 77087 38,569 1.00 77083 46,274 0.53 77002 85,690 0.42 77061 32,831 0.70 77042 39,033 0.38 77069 46,805 0.22 77027 99,163 0.01 77051 32,976 0.80 77099 39,034 0.80 77043 48,053 0.52 77010 100,696 0.02 77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 <	77037	32,175	0.69	77045	37,144	0.84	77429	44,717	0.06	77008	70,372	0.08
77520 32,733 0.82 77021 37,719 0.74 77068 45,437 0.43 77098 81,799 0.07 77026 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 0.16 77033 32,799 0.93 77087 38,569 1.00 77083 46,274 0.53 77002 85,690 0.42 77061 32,831 0.70 77042 39,033 0.38 77069 46,805 0.22 77027 99,163 0.01 77051 32,976 0.80 77099 39,034 0.80 77043 48,053 0.52 77010 100,696 0.02 77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 0.14 77034 33,189 0.67 77029 39,353 0.88 77379 48,899 0.21 77046 145,876	77036	32,342	0.93	77373	37,331	0.30	77377	44,740	0.24	77007	72,485	0.01
77026 32,784 0.94 77017 38,068 0.66 77345 46,251 0.05 77024 84,012 0.16 77033 32,799 0.93 77087 38,569 1.00 77083 46,274 0.53 77002 85,690 0.42 77061 32,831 0.70 77042 39,033 0.38 77069 46,805 0.22 77027 99,163 0.01 77051 32,976 0.80 77099 39,034 0.80 77043 48,053 0.52 77010 100,696 0.02 77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 0.14 77034 33,189 0.67 77029 39,353 0.88 77379 48,899 0.21 77046 145,876 0.10 77088 33,582 0.77 77072 39,611 0.87 77447 49,090 0.45 0.46 0.46 <td< td=""><td>77016</td><td>32,683</td><td>0.89</td><td>77035</td><td>37,410</td><td>0.74</td><td>77586</td><td>44,875</td><td>0.18</td><td>77019</td><td>79,084</td><td>0.09</td></td<>	77016	32,683	0.89	77035	37,410	0.74	77586	44,875	0.18	77019	79,084	0.09
77033 32,799 0.93 77087 38,569 1.00 77083 46,274 0.53 77002 85,690 0.42 77061 32,831 0.70 77042 39,033 0.38 77069 46,805 0.22 77027 99,163 0.01 77051 32,976 0.80 77099 39,034 0.80 77043 48,053 0.52 77010 100,696 0.02 77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 0.14 77034 33,189 0.67 77029 39,353 0.88 77379 48,899 0.21 77046 145,876 0.10 77092 33,572 0.75 77048 39,484 0.85 77018 48,964 0.48 77030 166,606 0.28 77598 34,239 0.57 77505 39,884 0.24 77096 49,146 0.39 0.32 0.32 <t< td=""><td>77520</td><td>32,733</td><td>0.82</td><td>77021</td><td>37,719</td><td>0.74</td><td>77068</td><td>45,437</td><td>0.43</td><td>77098</td><td>81,799</td><td>0.07</td></t<>	77520	32,733	0.82	77021	37,719	0.74	77068	45,437	0.43	77098	81,799	0.07
77061 32,831 0.70 77042 39,033 0.38 77069 46,805 0.22 77027 99,163 0.01 77051 32,976 0.80 77099 39,034 0.80 77043 48,053 0.52 77010 100,696 0.02 77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 0.14 77034 33,189 0.67 77029 39,353 0.88 77379 48,899 0.21 77046 145,876 0.10 77092 33,572 0.75 77048 39,484 0.85 77018 48,964 0.48 77030 166,606 0.28 77088 33,582 0.77 77072 39,611 0.87 77447 49,090 0.45 0.39 77038 34,239 0.57 77505 39,884 0.24 77096 49,146 0.39 77530 34,372 0.59 7	77026	32,784	0.94	77017	38,068	0.66	77345	46,251	0.05	77024	84,012	0.16
77051 32,976 0.80 77099 39,034 0.80 77043 48,053 0.52 77010 100,696 0.02 77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 0.14 77034 33,189 0.67 77029 39,353 0.88 77379 48,899 0.21 77046 145,876 0.10 77092 33,572 0.75 77048 39,484 0.85 77018 48,964 0.48 77030 166,606 0.28 77088 33,582 0.77 77072 39,611 0.87 77447 49,090 0.45 0.39 0.57 77505 39,884 0.24 77096 49,146 0.39 0.32 0.32 0.32 0.32 0.32 0.32 0.50 77066 39,912 0.59 77057 49,681 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.39	77033	32,799	0.93	77087	38,569	1.00	77083	46,274	0.53	77002	85,690	0.42
77532 33,059 0.37 77049 39,310 0.63 77058 48,465 0.46 77056 126,423 0.14 77034 33,189 0.67 77029 39,353 0.88 77379 48,899 0.21 77046 145,876 0.10 77092 33,572 0.75 77048 39,484 0.85 77018 48,964 0.48 77030 166,606 0.28 77088 33,582 0.77 77072 39,611 0.87 77447 49,090 0.45 0.48 0.48 77030 166,606 0.28 77598 34,239 0.57 77505 39,884 0.24 77096 49,146 0.39 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.34	77061	32,831	0.70	77042	39,033	0.38	77069	46,805	0.22	77027	99,163	0.01
77034 33,189 0.67 77029 39,353 0.88 77379 48,899 0.21 77046 145,876 0.10 77092 33,572 0.75 77048 39,484 0.85 77018 48,964 0.48 77030 166,606 0.28 77088 33,582 0.77 77072 39,611 0.87 77447 49,090 0.45 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.28 0.28 0.48 0.48 0.48 0.703 166,606 0.28 0.28 0.48 0.48 0.703 166,606 0.28 0.28 0.48 0.48 0.703 0.45 0.45 0.48 0.48 0.703 0.45 0.48 0.48 0.48 0.703 0.45 0.48 0.48 0.48 0.703 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.	77051	32,976	0.80	77099	39,034	0.80	77043	48,053	0.52	77010	100,696	0.02
77092 33,572 0.75 77048 39,484 0.85 77018 48,964 0.48 77030 166,606 0.28 77088 33,582 0.77 77072 39,611 0.87 77447 49,090 0.45 0.48 0.39 0.39 0.39 0.39 0.32 0.32 0.32 0.32 0.34 0.34 0.34 0.	77532	33,059	0.37	77049	39,310	0.63	77058	48,465	0.46	77056	126,423	0.14
77088 33,582 0.77 77072 39,611 0.87 77447 49,090 0.45 77598 34,239 0.57 77505 39,884 0.24 77096 49,146 0.39 77038 34,242 0.50 77004 39,890 0.53 77339 49,425 0.32 77530 34,372 0.59 77066 39,912 0.59 77057 49,681 0.34 77074 34,413 0.86 77023 40,307 0.76 77062 49,837 0.19	77034	33,189	0.67	77029	39,353	0.88	77379	48,899	0.21	77046	145,876	0.10
77598 34,239 0.57 77505 39,884 0.24 77096 49,146 0.39 77038 34,242 0.50 77004 39,890 0.53 77339 49,425 0.32 77530 34,372 0.59 77066 39,912 0.59 77057 49,681 0.34 77074 34,413 0.86 77023 40,307 0.76 77062 49,837 0.19	77092	33,572	0.75	77048	39,484	0.85	77018		0.48	77030	166,606	0.28
77038 34,242 0.50 77004 39,890 0.53 77339 49,425 0.32 77530 34,372 0.59 77066 39,912 0.59 77057 49,681 0.34 77074 34,413 0.86 77023 40,307 0.76 77062 49,837 0.19	77088	33,582	0.77	77072	39,611	0.87	77447	49,090	0.45			
77530 34,372 0.59 77066 39,912 0.59 77057 49,681 0.34 77074 34,413 0.86 77023 40,307 0.76 77062 49,837 0.19	77598	34,239	0.57	77505	39,884	0.24	77096	49,146	0.39			
77074 34,413 0.86 77023 40,307 0.76 77062 49,837 0.19	77038	34,242	0.50	77004	39,890	0.53	77339	49,425	0.32			
	77530	34,372	0.59	77066	39,912	0.59	77057	49,681	0.34			
77587 34,677 0.91 77065 40,389 0.43 77009 50,621 0.62	77074	34,413	0.86	77023	40,307	0.76	77062	49,837	0.19			
	77587	34,677	0.91	77065	40,389	0.43	77009	50,621	0.62			

xxxiii Table excludes data for zip codes with unavailable population data.



The Harris County Commissioners Court's Analyst's Office provides the Harris County Commissioners Court members with objective, nonpartisan, and timely fiscal and policy analysis related to the efficiency and effectiveness of various County operations.

This memo was prepared by Amy Rose, Senior Analyst.

Commissioners Court's Analyst's Office 1115 Congress Street, 6th Floor Houston, Texas 77002

Main: (832) 927-6900 Email: info@ccao.hctx.net